

From: Josh Fryman
To: Microsoft ATR
Date: 1/28/02 7:58am
Subject: Microsoft Settlement

To those involved in the Microsoft settlement case:

I am writing you to express my concern over the Proposed Final Judgement (PFJ) that is being considered. As a PhD student and researcher at Georgia Institute of Technology in the College of Computing, I note with a technical perspective that the PFJ is not in the best interests of the public.

I have watched Microsoft and its behavior for the past 20-odd years, and tell you freely that the glaring tricks present in the PFJ will enable Microsoft to continue with their anti-competitive practices, and even make the situation worse. The result of being found guilty of Anti-Trust laws should leave Microsoft punished and _incapable_ of repeating the business decisions and practices that fostered such acts.

While I know the holes in the PFJ to be many and quite large, here I will pick just one item and try to bring it to your consideration. In the PFJ, Microsoft is required to share the Windows operating system APIs with competitors. The wording which this is done, however, is so weak and narrow that several problems exist.

- 1 - Microsoft determines who its competitors are, and what pieces of software meet the weak definition of API.
- 2 - Microsoft clearly states that only for-profit companies can even be considered as to whether or not they are competitors, a decision again which only Microsoft can render itself. This immediately precludes free software, such as the Linux operating system of many news articles, from being able to use any information Microsoft may release.
- 3 - Well known and practiced software engineering and research terms and definitions, such as API, are rewritten in this PFJ such that many Microsoft's own products would not be bound by any parts of the PFJ.

Expressing the concept here in simple terms, if a little over-simplified, may help your understanding. An "API" is an overloaded acronym. It has meant in a traditional sense "Application Programmer Interface", or some close variant. In a modern sense, the "API" is not restricted to Applications or Application Programmers, but is meant in a broader sense of **any** piece of software interacting with **any other** piece of software on a system must do so through a set of published interfaces. These interfaces are an "API".

Microsoft has a long history of publishing only part of the API suite for its products, such as Microsoft Windows and Microsoft Internet Explorer, to name just two of the multitude. While competitors struggle to work with the Microsoft APIs, Microsoft's own products use undocumented (unpublished) APIs that are faster, simpler, and have more features. (Not all unpublished APIs are faster/simpler/etc, but many are.) When competitors discover these undocumented APIs, Microsoft has a known habit of changing them to break competitors software, starting the cycle over again of hidden API discovery.

Another typical example of Microsoft behavior can be seen in their Windows 2000 operating system. They took a known public standard, called Kerberos, for secure authentication of users via password and login names, for a baseline system and integrated it into Windows. Then, to "extend it", they very slightly modified the behavior to be feature-wise identical but implementation-wise incompatible with all other Kerberos based systems. They then billed this as "all-new" technology and made their changes a hidden, unpublished secret such that other companies' products could not interface with Microsoft's products. Their change? Several "bits" in the structure of a Kerberos message are reserved, but meant to be 0. Microsoft set some of these bits to 1, breaking the standard.

How do these examples relate to the issue at hand? In a very simple manner, they illustrate typical Microsoft behavior. Now, in the PFJ, Microsoft will be able to set its own standards for who may be considered a competitor, and who may see what it considers an API. It even allows Microsoft to change the APIs without telling anyone until much too late!

This is unjust. For this one area to be corrected, Microsoft should be required to do something along the following lines:

- All products must have their APIs published and released into the public domain. Any patents or copyrights on these API designs are also released into the public domain. (Here "All products" would be restricted to Microsoft Windows, Microsoft Internet Explorer, and all other programs that are installed by default with any Microsoft Windows operating system product.)
- Microsoft can not change the API without a 6-month prior public notice in DOJ designated major forums for the industry.
- Microsoft must allow individual components to be opted as not installed, as well as removable after installation, without degrading the system behavior in any way.
- Any Microsoft product found to be using undocumented or unpublished APIs immediately becomes public domain, and all source code, patents, and copyrights are released to the public domain.

- Any Microsoft product found to be violating the terms of this section becomes public domain property, with all source code, patents, and copyrights released to the public domain.

These firstthree simple guides would allow any and all companies to compete with Microsoft in a fair manner. It would also prohibit Microsoft from unfairly changing their APIs without giving fair warning to competitors. The final clauses are meant to be a deterrent to Microsoft for violating these rules.

These are the types of rules and judgements expected when a major monopoly-holder is found guilty of illegally maintaining their monopoly and abusing their power. Not the light wrist-slap that the PFJ is when examined closely.

Regards,

Josh Fryman
210 Arrowhead Rd
Bogart, GA 30622

email: fryman@cc.gatech.edu
phone: 706-548-8784

PhD Student and Researcher
College of Computing
Georgia Tech